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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Gary J. Sullivan

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EXAMINER

NATNAEL, PAULOS M

ART UNIT

PAPER NUMBER

2614

5

DATE MAILED: 06/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/982,127

Applicant(s)

SULLIVAN, GARY J.

Examiner

Paulos M. Natnael

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims **1-6,8,9,11,12,14-17, 29,31-35** are rejected under 35 U.S.C. 102(e) as being anticipated by Rasmussen, U.S. Pat. No. **5,995,146**.

Considering claim 1, Rasmussen discloses all claimed subject matter, note;

a) identifying video data to be encoded, is met Controller **20** (Fig.3) within encoder 30 (fig.1).

b) identifying a plurality of display regions associated with a particular video display type, wherein each of the plurality of display regions is associated with a particular portion of an image associated with the video data, is also met the controller 20 that enables Picture 1- to Picture 4 to be displayed as such, Pictures

1-4 being associated with a display device and that each region is associated with P1-P4 (90) display regions, Fig.1; (see also Figs. 2A and 2B)

c) encoding the video data such that the encoded video data includes information regarding the plurality of display regions, is met by Compression coding device 36 and Sequence Context inserter 38, (fig. 3) which inserts sequence context information which includes "picture size information, picture location information, as well as other coding parameters used in the chosen video compression method." (col. 4, lines 51-56)

Considering claim 2, a method as recited in claim 1 further comprising identifying an active region of the video data, is inherent because Picture 1- to Picture 4 are all displayed in the active portion of the display device.

Considering claim 3, a method as recited in claim 2 wherein encoding the video data includes indicating the active region of the image associated with the video data, is also inherent because the encoding part predetermines where the Picture 1- to Picture 4 will be displayed in the active portion of the display device.

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Considering claim 4, a method as recited in claim 1 further comprising storing the encoded video data, is met by Memory 76, fig.4 in combiner 70;

Considering claim 5, a method as recited in claim 1 further comprising transmitting the encoded video data to a plurality of destinations, is met by the transmitting nodes 1-4; (see also the disclosure on col. 3, lines 6-10 that “there may be more than one receiving node”)

Considering claim 6, a method as recited in claim 1 wherein each display region has an associated display region identifier, is inherent because the system (controller) decides which region would display each image in advance in which case there must be some sort of an ID to identify the display region. (see Fig.5B for Header/Payload ID)

Considering claim 8, a method comprising:

a) identifying video content to be encoded, is met by Controller 20 (Fig.3) within encoder 30 (fig.1).

b) identifying a first display region associated with a first video display type, is also met by Controller 20 which enables Picture 1 associated with a display device and that the region is associated with P1 (90) display region, Fig.1; (see also Figs. 2A and 2B)

c) identifying a second display region associated with the first video display type, is also met by Controller 20 which enables Picture 2 which is associated with a display device and that the region is associated with P2 (90) display region, Fig.1; (see also Figs. 2A and 2B)

c1) wherein the first and second display regions are associated with different portions of an image associated with the video content, is met by Picture 1- to Picture 2, where each picture P1 and P2 is distinct and is displayed in separate predetermined region. (see fig.1)

d) encoding the video content such that the encoded video content includes information regarding the first display region and the second display region, is met by Compression coding device 36 and Sequence Context inserter 38, which inserts sequence context information which includes "picture size information, picture

location information, as well as other coding parameters used in the chosen video compression method.” (col. 4, lines 51-56)

Considering claim 9, a method as recited in claim 8 further comprising:

a) identifying a third display region associated with a second video display type, is also met by Controller 20 which enables Picture 3 which is associated with a display type and that the region is associated with P3 (90) display region, Fig.1; (see also Figs. 2A and 2B)

b) identifying a fourth display region associated with the second video display type, is also met by Controller 20 which enables Picture 4 which is associated with a display type and that the region is associated with P4 (90) display region, Fig.1; (see also Figs. 2A and 2B)

b1) wherein the encoded video content includes information regarding the first display region, the second display region, the third display region, and the fourth display region, is met by the disclosure that the sequence context information includes “picture size information, picture location information, as well as other

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coding parameters used in the chosen video compression method.” (col. 4, lines 51-56)

Considering claim **10**, a method as recited in claim 8 further comprising identifying an active region of the video content, wherein encoding the video content includes indicating the active region of the image associated with the video content;

See rejection of claim 2;

Considering claim **11**, a method as recited in claim 8 wherein each display region has an associated display region identifier, is inherent because the system decides which region would display each image in advance in which case there must be some sort of an ID to identify the display region.

Considering claim **12**, a method as recited in claim 8 further comprising communicating the encoded video content to a plurality of receivers, is met by the transmitting nodes 1-4; (see also the disclosure on col. 3, lines 6-10 that “there may be more than one receiving node”)

Considering claim **14**, a method comprising:

- a) receiving encoded video data, wherein the encoded video data identifies a plurality of display regions associated with a particular display type, is met by combiner 70, fig.1;
- b) identifying a display region to display on a video display device, is also met by combiner 70 comprising sequence context information reader 74 and sequence context information inserter 78, Fig.4;
- c) decoding the encoded video content, is met by decoder 80, fig.1;

Considering claim **15**, a method as recited in claim 14 further comprising displaying the decoded video content on the video display device, is met by display 90, fig.1;

Considering claim **16**, a method as recited in claim 15 wherein displaying the decoded video content includes displaying the portion of the video content associated with the identified display region, is met by display 90 that displays each image on the predetermined position as identified by the communication manager 65, fig.1;

Considering claim 17, a method as recited in claim 14 wherein each of the plurality of display regions has an associated display region identifier, is inherent because the system decides which region would display each image in advance in which case there must be some sort of an ID to identify the display region.

Considering claim 19, a method comprising:

a) identifying video data to be encoded, is met by controller 20 (fig.3) within encoder 30 (fig.1).

c) identifying a plurality of display regions associated with the video data, is met by Picture 1- to Picture 4, which are associated with a display type and that each region is associated with P1-P4 (90) display regions, Fig.1; (see also Figs. 2A and 2B)

b) identifying an active region of the video data to be encoded, wherein the active region may be located anywhere within an image associated with the video, is inherent because the encoding part predetermines where any of the Picture 1- to Picture 4 will be displayed in the active portion of the display device.

d) encoding the video data such that the encoded video data includes an indication of the active region and includes information regarding the plurality of display regions, is met by the disclosure the sequence context information includes picture size information, picture location information as well as coding parameters used in the chosen video compression method.” (col. 4, lines 53-56)

Considering claim **20**, a method as recited in claim 19 further comprising storing the encoded video data on a storage device, is met by the memory 76, fig.1;

Considering claim **21**, a method as recited in claim 19 further comprising communicating the encoded video data to a video display device, is met by the display 90, fig.1.

Considering claim **23**, a method comprising:

a) receiving encoded video data, wherein the encoded video data identifies an active region that may be located anywhere within an image defined by the video data, and wherein the encoded video data identifies a plurality of display regions, is met by combiner 70, within receiver 60, fig.1, and by Picture 1- to Picture 4, which

are associated with a display type and that each region is associated with P1-P4 (90) display regions, Fig.1; (Figs. 2A and 2B; see also col. 4, lines 51-5)

b) identifying the location of the active region, is inherent because the encoding part 30 predetermines where any of the Picture 1- to Picture 4 will be displayed in the active portion of the display device.

c) identifying a display region to display on a video display device, is met by Picture 1- to Picture 4, which are associated with a display type and that each region is associated with P1-P4 (90) display regions, Fig.1; (Figs. 2A and 2B; see also col. 4, lines 51-5)

d) decoding the encoded video content such that the intersection of the active region and the display region is displayed, is met by decoder 80, fig.1;

Considering claim **24**, a method as recited in claim 23 further comprising displaying the decoded video content on a video display device, is met by the display 90, fig.1;

Considering claim **25**, one or more computer-readable memories containing a computer program that is executable by a processor to perform the method recited in claim 23.

Regarding claim 25, see rejection of claim 7.

Considering claim **29**, Rasmussen discloses all claimed subject matter, note;

a) a video content source, is met by the transmitting nodes 1-14, fig.1; (see col. 3, lines 20-31)

b) an encoder coupled to receive video content from the video content source, wherein the encoder identifies a plurality of display regions associated with the video content, each of the display regions being associated with a particular portion of an image defined by the video content, the encoder further encoding the video content such that the encoded video content includes information regarding the plurality of display regions, is met by encoder 30, figs. 1 and 3, which comprises compression coding device 36 and Sequence context information inserter 38 (FIG.3); (see col. 4, lines 51-56)

Considering claim **31**, an apparatus as recited in claim 29 further comprising a storage device coupled to the encoder, wherein the encoder stores the encoded

video content on the storage device, is met by the storage means 76, Fig.4 which is part of the combiner 70 that receives the encoded data from transmitting nodes 1-4 through the communications link 50, fig.1;

Considering claim 32, an apparatus as recited in claim 29 further comprising a transmitter coupled to the encoder, wherein the transmitter transmits the encoded video content to a destination device, is met by transmitting nodes 1-4, fig.1;

Considering claim 33, an apparatus as recited in claim 29 wherein each display region has an associated display region **identifier**.

See rejection of claim 6;

Considering claim 34, an apparatus comprising:

- a) an encoded video content source, is met by the transmitting nodes 1-4 which comprise encoders 30, fig.1;
- b) a decoder coupled to receive encoded video content from the encoded video content source, is met by the decoder 80, fig.1;
- c) wherein the encoded video content identifies a plurality of display

regions associated with a particular type of video display device, is met by Picture 1- to Picture 4, which are associated with a display type and that each region is associated with P1-P4 (90) display regions, Fig.1; (see also Figs. 2A and 2B)

d) the decoder to identify a display region to display on a video display device, and the decoder to decode the received encoded video content, is met by the decoder 80 that decodes the received encoded video content and the communications manager 65 (fig.1) which identify display size and region to display on the display device.
(col. 3, lines 57-59)

Considering claim 35, an apparatus as recited in claim 34 wherein the decoder further displays the decoded video content on the video display device, is met by the display 90, fig.1;

Considering claim 36, an apparatus as recited in claim 34 wherein the decoder further **identify active region** of the decoded video content, is met by the decoder 80 that decodes the received encoded video content and the communications manager 65 (fig.1) which identify display size and region of any of the Pictures 1-4

to display on the display device which are displayed on the active region of the display. (see also col. 3, lines 57-59)

Considering claim 37, an apparatus as recited in claim 36 wherein the decoder further displays the portion of the decoded video content defined by the intersection of the identified display region and the active region.

Regarding claim 37, see rejection of claim 36.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 7,10,13,18,22,26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rasmussen, U.S. Pat. No. 5,995,146.**

Considering claim 7, one or more computer-readable memories containing a computer program that is executable by a processor to perform the method recited in claim 1.

Regarding claim 7, Rasmussen discloses that the transmitting nodes and encoder may take the form of a workstation, (i.e., personal computer) or a video conferencing system. (col. 3. lines 6-10) Rasmussen does not specifically disclose computer-readable memories containing a computer program that is executable by a processor to perform the method of claim 1. However, the Examiner takes official Notice in that it is notoriously well known in the art to utilize an executable computer program to perform a method such as the claimed in claim 1 and, therefore, it would have been obvious to the skilled in the art at the time the invention was made to modify the system of Rasmussen so that the function is perform faster without human intervention using the workstation or PC of Rasmussen.

Considering claim 13, one or more computer-readable memories containing a computer program that is executable by a processor to perform the method recited in claim 8.

Regarding claim 13, see rejection of claim 7.

Considering claim **18**, one or more computer-readable memories containing a computer program that is executable by a processor to perform the method recited in claim 14.

Regarding claim 18, see rejection of claim 7.

Considering claim **22**, one or more computer-readable memories containing a computer program that is executable by a processor to perform the method recited in claim 19.

Regarding claim 22, see rejection of claim 7.

Considering claim **26**, one or more computer-readable media having stored thereon a computer program that, when executed by one or more processors, causes the one or more processors to:

- a) receive encoded video data, wherein the encoded video data identifies a plurality of display regions and an active region;
- b) identify a display region to display on a video display device;
- c) determine the intersection of the identified display region and the active region; and decode the portion of the encoded video data resulting from the intersection of the identified display region and the active region.

Regarding claim 26, see rejection of claims 7 and 23.

Considering claim 27, one or more computer-readable media as recited in claim 26 wherein the one or more processors further display the decoded video data on the video display device.

Regarding claim 27, see rejection of claim 7.

Considering claim 28, one or more computer-readable media as recited in claim 26 wherein the plurality of display regions are associated with a particular type of video display device.

Regarding claim 13, see rejection of claim 7.

Conclusion

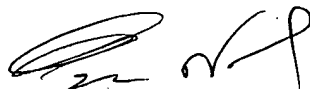
5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chen, 6,141,442 discloses method and apparatus for coding segmented regions which may be transparent in video sequences for content-based scalability.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paulos M. Natnael whose telephone number is (703) 305-0019. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703) 305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PMN
June 24, 2004



PAULOS M. NATNAEL
PATENT EXAMINER